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ABSTRACT

This technical report describes the impact that a definition of poverty based on the household unit, instead of on the currently used family unit, would have on the status of unrelated individuals and on the status of those family members who live in a household in which unrelated individuals are present. This information is based on a special tabulation of the March 1975 Current Population file which shows the poverty status of unrelated individuals based on (1) the current official definition of poverty, and (2) a definition of poverty in which a household concept was used in place of the family concept. For those unrelated individuals who live with a family, the tabulations also show the official poverty status of the family. It is shown that the change to a household-based concept would not affect the poverty status of persons who live alone or persons who live only with relatives, but it would affect the poverty count among unrelated individuals who do not live alone and among family members who live in a residence in which unrelated individuals are present. A definite statement on the relative merits of the household over the familial concept cannot yet be made. The issue depends upon the economic relationship between or among household members. The addition of questions to the Current Population Survey which would allow tabulation of data for non-familial spending units is a possible solution. The spending unit concept is subject to some ambiguity, however, because persons may share some basic expenses and not others. In the absence of spending unit information, it would be useful to periodically publish poverty counts based on the household concept. (Author/AM)

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THE MEASURE OF POVERTY

Technical Paper X

Effect of Using a Poverty Definition Based on Household Income

By: Jack McNeil
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Bureau of the Census

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November 16, 1976

Virginia Trotter
Assistant Secretary for Education
Department of Health, Education,
and Welfare

William A. Morrill
Assistant Secretary for Planning
and Evaluation
Department of Health, Education,
and Welfare

I am pleased to forward Technical Paper X, "Effect of Using a Poverty Definition Based on Household Income". It contains supporting data for the report entitled The Measure of Poverty which was prepared in compliance with section 823 of the Education Amendments of 1974. This paper was produced by Jack McNeil, Doug Sater, and Arno Winard, Bureau of the Census. It describes the impact that a definition of poverty based on the household unit instead of on the family unit, as at present, would have on the status of unrelated individuals and on the status of those family members who live in a household in which unrelated individuals are present.

Bette Mahoney

Bette Mahoney
Chairman
Poverty Studies Task Force

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PREFACE

Section 823 of the Education Amendments of 1974 (PL 93-380) requires a thorough study of the manner in which the relative measure of poverty for use in the financial assistance program, authorized by Title I of the Elementary and Secondary Education Act of 1965, may be more accurately and currently developed.

That financial assistance program is administered by the Commissioner of Education, through the Office of Education, Department of Health, Education, and Welfare. An important feature is the use of a formula prescribed by Section 103 of the Elementary and Secondary Education Act for the annual distribution of Federal funds to school districts. A significant factor in the formula is the number of school-age children 5 to 17 in poor families within each school district. The measure of poverty which is used, and which is the subject of the study mandated by Section 823, is the Federal government's official statistical definition of poverty (also known as the Orshansky, OMB, Census Bureau, or Social Security poverty lines).

Other work related to poverty measurement has been called for in recent legislative acts. In the Comprehensive Employment and Training Act, the Secretary of Labor is directed to develop and maintain comprehensive household budget data at different levels of living, including a "level of adequacy." Any such review of the level of adequacy must necessarily be closely related to measures of poverty. The Housing and Community Development Act of 1974 gives the Secretary of HUD authority to adjust the poverty measure to reflect local variations in the cost of living. The Conference Report accompanying it directs the Secretary to develop or obtain data with respect to the "extent of poverty" by metropolitan areas and to submit such data to the Congress as part of a March 31, 1977, report.

Because of the broad scope of the subject matter, coverage of the study of the measure of poverty mandated by Section 823 of the Education Amendments of 1974 was extended to include implications of the study findings for the poverty-related programs of all affected Federal departments and agencies. The Title I program of the Elementary and Secondary Education Act was given the most detailed treatment, to meet the legislatively-mandated specifications for the study as well as to serve as a primary example of application of the concepts of poverty measurement to Federal programs. The findings of the study are published in a report entitled, "The Measure of Poverty." An important objective of the study was full discussion and documentation of the major elements of currently applied and potentially usable poverty measures. Material containing essential supporting documentation for the study was assembled as technical papers. These have been written to stand alone as complete technical treatments of specific subjects.

The study was performed under the direct guidance of a Poverty Studies Task Force of the Subcommittee on the Education of the Disadvantaged and Minorities, Federal Inter-Agency Committee on Education. Technical papers were prepared at the request of, under the direction of, and subject to review by the Task Force members. Some papers are primarily the work of one or two persons; these are attributed to their authors. Others result from the collective input of Task Force members or advisors and no specific attribution is given except to the Task Force, as a whole.

The following listings show members of the Poverty Studies Task Force by appropriate Federal departments and agencies, and the titles and authors of the technical papers.

This report contains Technical Paper X, Effect of Using a Poverty Definition Based on Household Income. It was prepared by Jack McNeil, Doug Sater, and Arno Winard, Bureau of the Census.

To obtain copies of the report, "The Measure of Poverty," or any of the technical papers, please write to:

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Federal Interagency Committee on Education
Subcommittee on Education for the Disadvantaged and Minorities

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TECHNICAL PAPERS

I.	Documentation of Background Information and Rationale for Current Poverty Matrix	Mollie Orshansky Social Security Administration
II.	Administrative and Legislative Usages of the Terms "Poverty," "Low Income," and Other Related Terms	Poverty Studies Task Force with assistance from Ellen Kraus
III.	A Review of the Definition and Measurement of Poverty	Urban Systems Research and Engineering, Inc.
IV.	Bureau of Labor Statistics Family Budgets Program	Mark Sherwood Bureau of Labor Statistics
V.	The Consumer Price Index	Jill King Mathematica, Inc.
VI.	Wealth and the Accounting Period in the Measurement of Means	Nelson McClung and Eugene Steuerle Department of the Treasury
VII.	In-kind Income and the Measurement of Poverty	Janice Peskin Health, Education, and Welfare
VIII.	The 1972-73 Consumer Expenditure Survey	Jill King Mathematica, Inc.
IX.	Inventory of Federal Data Bases Related to the Measurement of Poverty (a) Non-Census Data Bases (b) Census Data Bases	Connie Citro, Mathematica, Inc. Bureau of the Census
X.	Effect of Using a Poverty Definition Based on Household Income	Jack McNeil, Doug Sater, Arno Winard Bureau of the Census
XI.	Update of the Orshansky Index	Mollie Orshansky Social Security Administration
XII.	Food Plans for Poverty Measurement	Betty Peterkin Department of Agriculture
XIII.	Relative Poverty	Jack McNeil Bureau of the Census
XIV.	Relative Measure of Poverty	Stanley Stephenson Health, Education, and Welfare
XV.	Analytic Support for Cost-of-Living Differentials in the Poverty Thresholds	Thomas Carlin Department of Agriculture
XVI.	Implications of Alternative Measures of Poverty on Title I of the Elementary and Secondary Education Act	Abdul Khan and Herman Miller Health, Education, and Welfare
XVII.	The Sensitivity of the Incidence of Poverty to Different Measures of Income: School-age Children and Families	Survey Research Center University of Michigan
XVIII.	Characteristics of Low-Income Populations Under Alternative Poverty Definitions	Lawrence Brown Health, Education, and Welfare

INTRODUCTION

This paper describes the impact on the poverty count of moving from a poverty definition based on family or individual income to one based on household income. The basic units in statistics on poverty are families and unrelated individuals. A family is comprised of all related persons who share the same residence; unrelated individuals are those persons who do not live with a relative. An unrelated individual may live alone, with a family, or with other unrelated individuals. 1/

THE CURRENT METHOD OF DETERMINING POVERTY STATUS

Under the current definition, the poverty status of a person who lives with one or more relatives is determined by the income of that person plus the income of those relatives with whom he or she lives. The poverty status of an unrelated individual who is 14 years of age or older is wholly determined by the income of that person. Unrelated individuals under 14 years of age are excluded from the poverty universe. Families and unrelated individuals over 14 years of age are classified as poor or non-poor by comparing their annual income with certain threshold measures. These threshold measures vary according to the size and composition of the family, the sex and age of the family head, and farm-nonfarm residence. An unrelated individual is considered to be a family of one.

THE ECONOMICS OF SHARING A RESIDENCE

There are good reasons for choosing families and unrelated individuals as basic economic units. Families exist as economic entities by virtue of traditional and legal bonds. Bonds between unrelated individuals who share a single residence are generally much weaker than familial bonds. This is so despite the fact that many unrelated individuals have strong ties to those with whom they live, e.g., unmarried couples who live together and regard themselves as a single economic unit, and families who consider the unrelated individual living with them as part of the family for economic purposes. Yet, although the bond may be weaker, households made up of unrelated individuals enjoy most benefits of the economies of scale that characterize the economic situation of families. These benefits include the utilization of a single shelter and the purchase and preparation of food in quantities.

1/ Note: After this paper was written, the Bureau of the Census released revised estimates of the number of persons who were in poverty in 1974. The revisions result from the use of a new computer processing system. The official poverty counts referred to in this paper are unrevised estimates. Tabulations using the new computer processing system show that the findings reported in this paper would not be affected by the processing change.

DETERMINING POVERTY STATUS UNDER A METHOD BASED ON HOUSEHOLD INCOME

Under a definition based on household income, the poverty status of a person would be determined by the income of that person plus the income of any other persons with whom he or she lives. Consider, for example, the case of a household comprised of two unrelated persons, one with a previous year income of $15,000 and the other with no previous year income. The person with no income would be classified as poor under the current measure but would not be poor under a measure based on household income.

The change to a household-based concept would not affect the poverty status of persons who live alone or persons who live only with relatives, but it would affect the poverty count among unrelated individuals who do not live alone and among family members who live in a residence in which unrelated individuals are present

THE NUMBER OF PERSONS CLASSIFIED AS POOR UNDER A METHOD BASED ON HOUSEHOLD INCOME

Table 1 shows how the use of a household-based definition would affect the number of persons classified as poor. The official estimate of the number of persons who were poor in 1974 is 24,260,000. The estimate under the household-based definition is 22,784,000, or about 6 percent lower than the official estimate. The change in definition reduces the estimated number of poor unrelated individuals from 4,820,000 to 3,758,000, a difference of 22 percent, and reduces the estimated number of poor family members from 19,440,000 to 19,026,000, a difference of only 2 percent.

Table 1. Effect of Using a Poverty Definition Based on Household Income on the Number of Persons Classified as Poor in 1974

(Numbers in thousands)

Persons by family status	Poor by Current Poverty Definition	Poor by Definition Based on Household Income	Difference
All persons	24,260	22,784	1,478
All family members	19,440	19,026	414
All unrelated individuals	4,820	3,758	1,062

Source: Special tabulation from the March 1975 Current Population Survey.

Table 2 shows the effect of the revised definition on the poverty status of unrelated individuals by age, sex and living arrangements. The table shows that most of those unrelated individuals who live with a family and who are classified as poor under the official definition would not be poor under a

Table 2. Effect of Using a Poverty Definition Based on Household Income on the Number of Poor Unrelated Individuals Classified as Poor in 1974

(Numbers in thousands)

Age, sex and living arrangements	Total	Poor by current poverty definition	Poor by definition based on household income	Difference
AGE				
Under 14 years of age	229	(NA)	34	(NA)
14 years of age or older	18,872	4,820	3,758	1,062
14 to 17 years of age	148	134	21	113
18 to 24 years of age	2,817	814	405	409
25 to 64 years of age	9,413	1,812	1,412	400
65 years of age or older	6,493	2,059	1,920	139
LIVING ARRANGEMENTS BY SEX: UNRELATED INDIVIDUALS 14 YEARS OF AGE OR OLDER				
Living alone	13,939	3,286	3,286	-
Males	4,918	840	840	-
Females	9,021	2,445	2,445	-
Not living alone	4,933	1,534	472	1,062
Males	2,938	755	253	502
Females	1,994	779	220	559
Living with a family	887	433	82	351
Males	557	228	54	174
Females	330	205	27	178
Living with a husband-wife family	380	222	13	209
Males	201	105	7	98
Females	179	117	7	110
Living with a family with a male head	120	69	8	61
Males	61	26	4	22
Females	59	43	4	39
Living with a family with a female head	387	142	60	82
Males	295	98	44	54
Females	92	45	17	28
Living with one other unrelated individual	2,832	670	228	442
Males living with females	507	132	50	82
Females living with males	507	211	50	161
Males living with males	1,105	167	59	108
Females living with females	713	160	68	92
Living with two or three other unrelated individuals	749	234	37	197
Males	520	146	24	122
Females	229	87	12	75
Living with four or more other unrelated individuals	465	198	126	72
Males	250	82	64	18
Females	215	116	62	54

Source: Special tabulations from March 1975 Current Population Survey.
Note: The detail shown in the table may not add to totals because of rounding.
NA: Not included in poverty universe under current definition.
-: Rounds to zero.

household-based definition. In 1974, 433,000 such persons were poor under a official definition, but only 82,000 would have been poor under the revised definition. The poverty count would have declined by 442,000 in households comprised of two unrelated individuals, by 197,000 in households comprised of three or four unrelated individuals, and by 72,000 in households comprised of five or more unrelated individuals. Of course, the change to a household-based definition would not affect the poverty count among the largest group of unrelated individuals, those who live by themselves.

NON-SELF-SUPPORTING INDIVIDUALS

Unrelated individuals under 14 years of age are not presently included in the poverty universe. Because income questions are not asked of persons under 14 years of age, those young people have neither family income nor income of their own. Table 2 shows that there were about 229,000 unrelated individuals in this age group as of March 1975. The application of the household-based definition places 34,000 of these persons in poverty.

Unrelated individuals in the 14- to 17-year age group are included in the poverty universe even though most persons of this age group do not support themselves. Table 2 shows that 134,000 of the 148,000 unrelated individuals in this age group were considered to be in poverty in 1974, but that under the household-based definition only 21,000 of these persons would have been classified as poor.

THE QUESTION OF EQUITY

The tables show the impact on poverty counts that would result from the adoption of a household-based poverty definition, but they cannot tell us whether a household-based definition is more equitable than a family-based definition. The hosehold-based definition is clearly preferable in those cases in which the household members act as a single spending unit. The household-based definition would also be an improvement over current practice in the treatment of unrelated individuals under 18 years of age. Most individuals in this category are not likely to be self-supporting.

A definite statement on the relative merits of the household over the familial concept cannot yet be made. The issue depends upon the economic relationship between or among household members. The addition of questions to the March Current Population Survey which would allow tabulation of data for non-familial spending units is a possible solution. The spending unit concept is subject to some ambiguity, however, because persons may share some basic expenses and not others. In the absence of spending-unit information, it would be useful to periodically publish poverty counts based on the household concept.

NOTE ON METHODOLOGY

The information shown in this report is based on a special tabulation of the March 1975 Current Population file. The special tabulation shows that poverty status of unrelated individuals based on (1) the current official definition of poverty, and (2) a definition of poverty in which a household concept was used in place of the family concept. For those unrelated individuals who lived with a family, the tabulations also show the official poverty status of the family.

The official poverty status of unrelated individuals (and families with whom unrelated individuals lived) was determined by comparing the income of the person (or family) with a predetermined poverty threshold. The threshold level varies by the size of the family, the number of related children under 18, the sex and age of the household head, and farm-nonfarm residence. The actual threshold amounts are based on a formula which takes into account the cost of required food, a factor relating spending on food to total spending, and changes in the Consumer Price Index. For unrelated individuals, the threshold amounts vary only by age, sex, and farm-nonfarm residence because the size of the family is defined to be one.

The household-based definition of poverty determined poverty status by treating all household members as family members. The poverty status of the household members was determined by comparing the combined income of the household members with the applicable threshold. For example, the poverty threshold for a nonfarm household comprised of three unrelated individuals at least one of whom was a male was defined to be equal to the poverty threshold for a nonfarm family of three with a male head. Table 3, a condensed matrix of poverty thresholds shows that the threshold for this family type was less than $3,957, each of the persons was considered to be in poverty. If the combined income was $3,957 or more, none of the persons was considered to be in poverty.

Table 3. Weighted Average Thresholds at the Low-Income Level in 1974 by Size of Family and Sex of Head, by Farm-Nonfarm Residence

Size of Family	Total	Nonfarm			Farm		
		Total	Male Head 1/	Female Head 1/	Total	Male Head 1/	Female Head 1/
1 person (unrelated individual)	$2,487	$2,495	$2,610	$2,413	$2,092	$2,158	$2,029
Under 65 years	2,557	2,562	2,658	2,458	2,197	2,258	2,089
65 years and over	2,352	2,364	2,387	2,357	2,013	2,030	2,002
2 persons	3,191	3,211	3,220	3,167	2,707	2,711	2,632
Head under 65 years	3,294	3,312	3,329	3,230	2,819	2,824	2,706
Head 65 years and over	2,958	2,982	2,984	2,966	2,535	2,535	2,533
3 persons	3,910	3,936	3,957	3,822	3,331	3,345	3,133
4 persons	5,008	5,038	5,040	5,014	4,302	4,303	4,262
5 persons	5,912	5,950	5,957	5,882	5,057	5,057	5,072
6 persons	6,651	6,699	6,706	6,642	5,700	5,700	5,702
7 or more persons	8,165	8,253	8,278	8,079	7,018	7,017	7,066

1/ For one person (i.e. unrelated individual), sex of the individual.

The number of family members who would have their poverty status changed by the adoption of a household-based definition represents an estimate rather than an actual tabulation. The special tabulation shows that 230,000 unrelated individuals lived with officially poor families in March 1975. Because some families have more than one unrelated individual living with them, it was estimated that the number of officially poor families with whom one or more unrelated individuals resided was 184,000. Under the household concept, it was estimated that only 75,000 of these families would be classified as poor, a difference of 109,000 families. The difference in the number of poor families was then multiplied by the average size of family for poor families (3.8) to obtain the estimate of the difference in the number of poor persons, 414,000.

To obtain copies of the report, *The Measure of Poverty*, or additional copies of this or any of the other Technical Papers, please write to:

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